Serial No.: 10/797,971 Group Art Unit: 2815

## AMENDMENTS TO CLAIMS

- Please delete claims 4, 10, and 16.
- Please amend pending claims 1, 7, 13, and 14 as indicated below. A complete listing
  of all claims and their status in the application are as follows:
  - 1. (currently amended) A surface-mount-enhanced lead frame, comprising: a die pad; and
  - a plurality of leads disposed around the die pad, wherein a dam bar structure formed with an indentation is integrally formed to be connected to each end of the leads away from the die pad-pad; and
  - a solder metal layer is formed on a surface of the indentation of the dam bar structure of the lead frame.
- (original) The lead frame as claimed in claim 1, wherein the lead frame is a quad-flat non-leaded (QFN) lead frame.
- 3. (original) The lead frame as claimed in claim 1, wherein the indentation is formed by either one of the chemical etching or punching method.
  - 4. (canceled)
- 5. (original) The lead frame as claimed in claim 4, wherein the solder metal layer is made of metal palladium (Pd) and is pre-plated on a surface of the lead frame.
- 6. (original) The lead frame as claimed in claim 4, wherein the solder metal layer made of tin/lead (Sn/Pb) covers an exposed surface of the lead frame after a molding process is conducted to form a package body coupled to the lead frame.
- 7. (currently amended) A semiconductor package with a surface-mount-enhanced lead frame, comprising:
  - a lead frame comprising a die pad and a plurality of leads disposed around the die pad, and a dam bar structure formed with an indentation is integrally formed to be connected to each end of the leads away from the die pad;
  - at least a semiconductor chip bonded on the die pad, and electrically connected to the leads; and

Serial No.: 10/797,971 Group Art Unit: 2815

- a package body formed to encapsulate the semiconductor chip and the lead frame in a manner that the indentation of the dam bar structure is exposed to the ambient: and
- a solder metal layer is formed on a surface of the indentation of the dam bar structure of the lead frame.
- 8. (original) The semiconductor package as claimed in claim 7, wherein the lead frame is a quad-flat non-leaded (QFN) lead frame.
- 9. (original) The semiconductor package as claimed in claim 7, wherein the indentation is formed by either one of the chemical etching or punching method.
  - 10. (canceled)
  - 11. (original) The semiconductor package as claimed in claim 10, wherein the solder metal layer is made of metal palladium (Pd) which is pre-plated on a surface of the lead frame.
- 12. (original) The semiconductor package as claimed in claim 10, wherein the solder metal layer made of tin/lead (Sn/Pb) covers an exposed surface of the lead frame after a molding process is conducted to form a package body coupled to the lead frame.
- 13. (currently amended) A method for fabricating a semiconductor package with surface-mount-enhanced lead frame, comprising:
  - preparing a lead frame module plate which consists of a plurality of lead frames arranged in matrix form, wherein any two of the neighboring lead frames are separated by a dam bar structure formed with an indentation, and wherein the lead frame comprises a die pad and a plurality of leads disposed around the die pad in a manner that ends of the leads oriented away from the die pad are connected to the dam bar structure;

bonding at least a semiconductor chip on the die pad of each of the lead frame; electrically connecting the semiconductor chip to the corresponding leads;

forming a package body on the lead frame module plate to cover the lead frames and the semiconductor chips, in a manner that each of the indentations of the dam bar structures is exposed to the ambient;-and

Serial No.: 10/797,971 Group Art Unit: 2815

> performing a singulation process along the indentations of the dam bar structures so as to separate the lead frame module plate mounted with the semiconductor chips and package body into a plurality of semiconductor-packages-packages; and a solder metal layer is formed on a surface of each of the indentations of the dam bar structures on the lead frame module plate.

- (currently amended) The method as claimed in elaim13 claim 13, wherein 14. the lead frame is a quad-flat non-leaded (QFN) lead frame.
- The method as claimed in claim 13, wherein the indentation is (original) 15. formed by either one of the chemical etching or punching method.
  - (canceled) 16.
  - The method as claimed in claim 16, wherein the solder metal 17. (original) layer made of metal palladium (Pd) is pre-plated on a surface of the lead frame module plate.
- The method as claimed in claim 16, wherein the solder metal 18. (original) layer made of tin/lead (Sn/Pb) covers an exposed surface of the lead frame module plate after a molding process is conducted to form the package body coupled to the lead frame module plate.
- The method as claimed in claim 13, wherein the singulation (original) 19. process is a punching process.
- The method as claimed in claim 13, wherein a branched 20. (original) punching cutting tool is used for performing the singulation process.